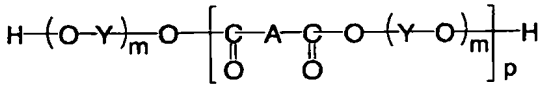
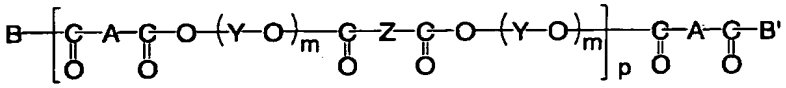
WHAT IS CLAIMED IS:

1. A diamine compound polymer comprising a condensed aromatic group selected from the groups represented by the following formulae (I-1) and (I-2):

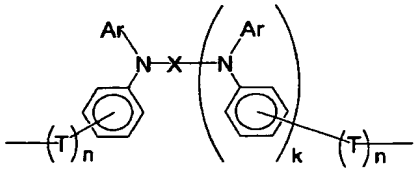


(I-1)



(I-2)

wherein A represents a structure represented by the following formula (II-1); Y and Z represent divalent hydrocarbon groups; B and B' each independently represents a group represented by -O-(Y-O)m-H or -O-(Y-O)m-CO-Z-CO-OR', wherein R' is a hydrogen atom, an aralkyl group, a substituted or non-substituted aryl group, or a substituted or non-substituted aralkyl group; m represents an integer from 1 to 5; and p represents an integer from 5 to 5000;



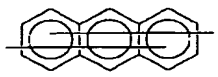
(II-1)

wherein Ar represents a substituted or non-

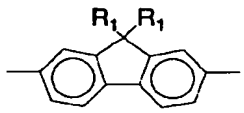
substituted monovalent aromatic group; X represents a substituted or non-substituted divalent condensed aromatic group; T represents a divalent linear hydrocarbon group having 1 to 6 carbon atoms or a divalent branched hydrocarbon group having 2 to 10 carbon atoms; and k and n each represents an integer of 0 or 1.

2. A diamine compound polymer according to claim 1, wherein X in the formula (II-1) is a divalent aromatic compound selected from the group consisting of the following structural formulae (III-1), (III-2) and (III-3):

(III-1)



(III-2)



(III-3)

wherein R_1 represents a hydrogen atom, aralkyl group, a substituted or non-substituted aryl group, or a substituted or non-substituted aralkyl group.

3. A diamine compound polymer according to claim 1,

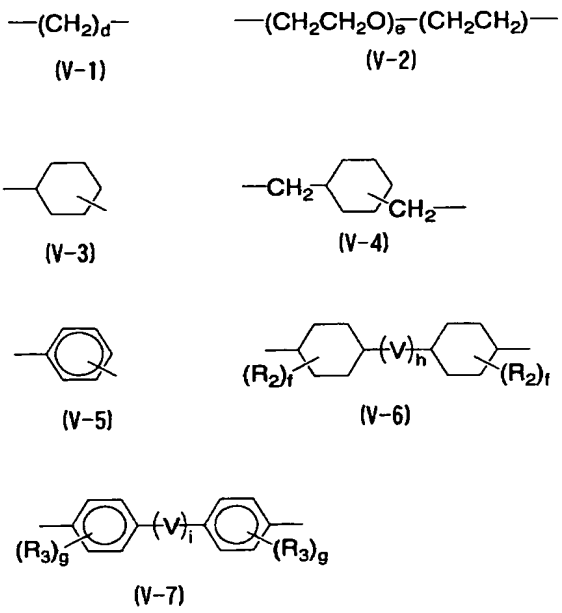
wherein X in the formula (II-1) is a divalent aromatic compound represented by the structural formula (III-1), and

X is bonded to the nitrogen atoms in the formula (II-1) at positions 1 and 4 or positions 2 and 6 in the formula (III-1).

4. A diamine compound polymer according to claim 1, wherein X in the formula (II-1) is a divalent aromatic compound represented by the structural formula (III-2), and

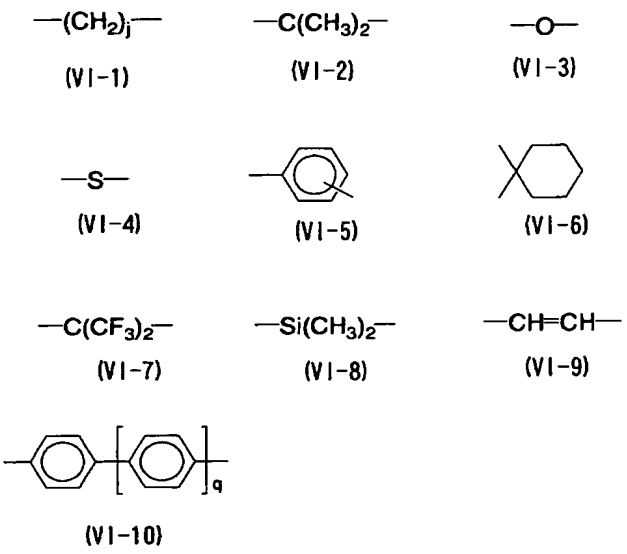
X is bonded to the nitrogen atoms in the formula (II-1) at positions 9 and 10 in the formula (III-2).

5. A diamine compound polymer according to claim 1, wherein Y and Z are independently selected from the group consisting of the following formulae (V-1) to (V-7):



wherein R_2 and R_3 each represents a hydrogen atom, an alkyl group having 1 to 4 carbon atoms, an alkoxy group having 1 to 4 carbon atoms, a substituted or non-substituted phenyl group, a substituted or non-substituted aralkyl group, or a halogen atom; d and e each represents

an integer from 1 to 10; f and g each represents an integer of 0, 1 or 2; h and i each represents an integer of 0 or 1; and V represents a group selected from the following formulae (VI-1) to (VI-10);

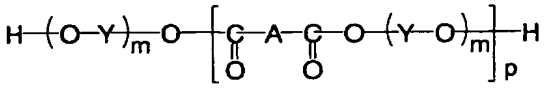


wherein j represents an integer from 1 to 10; and q represents an integer from 1 to 3.

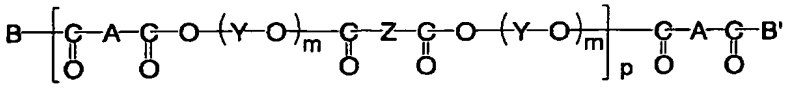
6. A diamine compound polymer according to claim 1, wherein Ar represents a substituted or non-substituted monovalent aromatic group containing 1 to 10 aromatic rings.

7. A diamine compound polymer according to claim 1, wherein T represents a divalent linear hydrocarbon group having 2 to 6 carbon atoms or a divalent branched hydrocarbon group having 3 to 7 carbon atoms.

8. A method for producing a diamine compound polymer having a condensed aromatic group selected from the groups represented by the following formulae (I-1) and (I-2), the method comprising the step of polymerizing monomers represented by the following formula (VII-1):

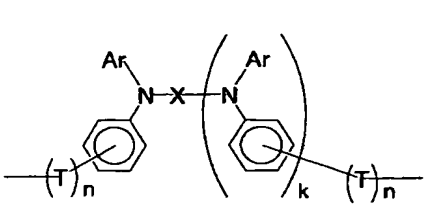


(I-1)

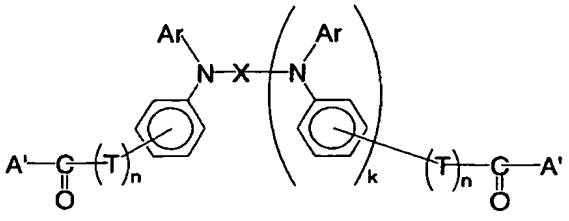


(I-2)

wherein A represents a structure represented by the following formula (II-1); Y and Z represent divalent hydrocarbon groups; B and B' each independently represents a group represented by -O-(Y-O)m-H or -O-(Y-O)m-CO-Z-CO-OR', wherein R' is a hydrogen atom, an aralkyl group, a substituted or non-substituted aryl group, or a substituted or non-substituted aralkyl group; m represents an integer from 1 to 5; and p represents an integer from 5 to 5000;



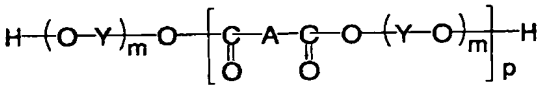
(II-1)



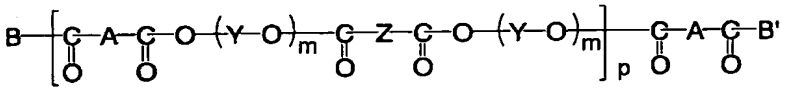
(VII-1)

wherein Ar represents a substituted or non-substituted monovalent aromatic group; X represents a substituted or non-substituted divalent condensed aromatic group; T represents a divalent linear hydrocarbon group having 1 to 6 carbon atoms or a divalent branched hydrocarbon group having 2 to 10 carbon atoms; and k and n each represents an integer of 0 or 1; and A′ represents a hydroxyl group, a halogen atom or a group represented by -O-R_4, wherein R_4 is an alkyl group, a substituted or non-substituted aryl group or an aralkyl group.

9. A method for producing a diamine compound polymer including a condensed aromatic group selected from the groups represented by the following formula (I-1) or (I-2), the method comprising the step of polymerizing a monomer represented by the following formula (VIII-1):



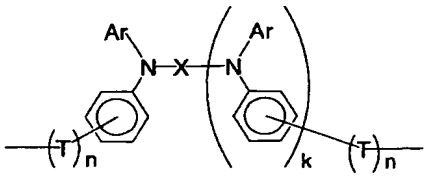
(I-1)



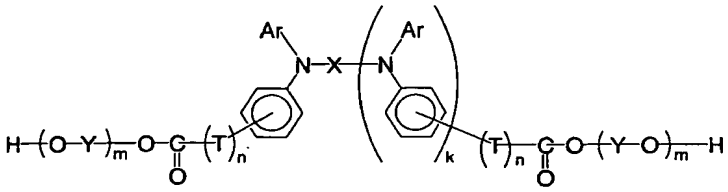
(I-2)

wherein A represents a structure represented by the following formula (II-1); Y and Z represent divalent hydrocarbon groups; B and B′ each independently represents

a group represented by -O-(Y-O)m-H or -O-(Y-O)m-CO-Z-CO-OR', wherein R' is a hydrogen atom, an aralkyl group, a substituted or non-substituted aryl group, or a substituted or non-substituted aralkyl group; m represents an integer from 1 to 5; and p represents an integer from 5 to 5000;



(II-1)



(VIII-1)

wherein Ar represents a substituted or non-substituted monovalent aromatic group; X represents a substituted or non-substituted divalent condensed aromatic group; T represents a divalent linear hydrocarbon group having 1 to 6 carbon atoms or divalent branched hydrocarbon group having 2 to 10 carbon atoms; k and n each represents an integer of 0 or 1; Y represents a divalent hydrocarbon group; and m represents an integer from 1 to 5.